



Sequence Listing.ST25.txt
SEQUENCE LISTING

<110> Bjorn, Soren E
Nicolaisen, Else M
Jorgensen, Anker S

<120> TF Binding Compound

<130> 6455.200-US

<140> 10/617,619
<141> 2003-11-07

<150> Danish Application No. PA 2002 01099
<151> 2002-07-12

<150> US 60/404,568
<151> 2002-08-19

<160> 13

<170> PatentIn version 3.2

<210> 1
<211> 406
<212> PRT
<213> Artificial

<220>
<223> Synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(406)
<223> Xaa=4-carboxyglutamic acid (gamma-carboxyglutamate)

<400> 1

Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa
1 5 10 15

Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys
20 25 30

Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp
35 40 45

Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln
50 55 60

Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn
65 70 75 80

Cys Glu Thr His Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly
85 90 95

Sequence Listing.ST25.txt

Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys
100 105 110

Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr
115 120 125

Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg
130 135 140

Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro
145 150 155 160

Lys Gly Glu Cys Pro Trp Gln Val Leu Leu Val Asn Gly Ala Gln
165 170 175

Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala
180 185 190

His Cys Phe Asp Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu
195 200 205

Gly Glu His Asp Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg
210 215 220

Val Ala Gln Val Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn
225 230 235 240

His Asp Ile Ala Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp
245 250 255

His Val Val Pro Leu Cys Leu Pro Glu Arg Thr Phe Ser Glu Arg Thr
260 265 270

Leu Ala Phe Val Arg Phe Ser Leu Val Ser Gly Trp Gly Gln Leu Leu
275 280 285

Asp Arg Gly Ala Thr Ala Leu Glu Leu Met Val Leu Asn Val Pro Arg
290 295 300

Leu Met Thr Gln Asp Cys Leu Gln Gln Ser Arg Lys Val Gly Asp Ser
305 310 315 320

Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala Gly Tyr Ser Asp Gly Ser
325 330 335

Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly Pro His Ala Thr His Tyr
340 345 350

Sequence Listing.ST25.txt

Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val Ser Trp Gly Gln Gly Cys
355 360 365

Ala Thr Val Gly His Phe Gly Val Tyr Thr Arg Val Ser Gln Tyr Ile
370 375 380

Glu Trp Leu Gln Lys Leu Met Arg Ser Glu Pro Arg Pro Gly Val Leu
385 390 395 400

Leu Arg Ala Pro Phe Pro
405

<210> 2
<211> 30
<212> DNA
<213> Human

<400> 2
gctagccacc atggctctccc aggccctcag 30

<210> 3
<211> 39
<212> DNA
<213> Human

<400> 3
cgagccccat ttcccggtac cgcaagcccc aaatcttgt 39

<210> 4
<211> 39
<212> DNA
<213> Human

<400> 4
cgagccccat ttcccggtac cgcaagcccc aaatcttgt 39

<210> 5
<211> 23
<212> DNA
<213> Human

<400> 5
ttgccggccg tcgcactcat tta 23

<210> 6
<211> 701
<212> PRT
<213> Human

<400> 6

Met Val Ser Gln Ala Leu Arg Leu Leu Cys Leu Leu Leu Gly Leu Gln
1 5 10 15

Sequence Listing.ST25.txt

Gly Cys Leu Ala Ala Gly Gly Val Ala Lys Ala Ser Gly Gly Glu Thr
20 25 30

Arg Asp Met Pro Trp Lys Pro Gly Pro His Arg Val Phe Val Thr Gln
35 40 45

Glu Glu Ala His Gly Val Leu His Arg Arg Arg Arg Ala Asn Ala Phe
50 55 60

Leu Glu Glu Leu Arg Pro Gly Ser Leu Glu Arg Glu Cys Lys Glu Glu
65 70 75 80

Gln Cys Ser Phe Glu Glu Ala Arg Glu Ile Phe Lys Asp Ala Glu Arg
85 90 95

Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp Gln Cys Ala Ser
100 105 110

Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln Leu Gln Ser Tyr
115 120 125

Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn Cys Glu Thr His
130 135 140

Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly Gly Cys Glu Gln
145 150 155 160

Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys Arg Cys His Glu
165 170 175

Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr Pro Thr Val Glu
180 185 190

Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg Asn Ala Ser Lys
195 200 205

Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro Lys Gly Glu Cys
210 215 220

Pro Trp Gln Val Leu Leu Leu Val Asn Gly Ala Gln Leu Cys Gly Gly
225 230 235 240

Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala His Cys Phe Asp
245 250 255

Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu Gly Glu His Asp
260 265 270

Sequence Listing.ST25.txt

Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg Val Ala Gln Val
275 280 285

Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn His Asp Ile Ala
290 295 300

Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp His Val Val Pro
305 310 315 320

Leu Cys Leu Pro Glu Arg Thr Phe Ser Glu Arg Thr Leu Ala Phe Val
325 330 335

Arg Phe Ser Leu Val Ser Gly Trp Gly Gln Leu Leu Asp Arg Gly Ala
340 345 350

Thr Ala Leu Glu Leu Met Val Leu Asn Val Pro Arg Leu Met Thr Gln
355 360 365

Asp Cys Leu Gln Gln Ser Arg Lys Val Gly Asp Ser Pro Asn Ile Thr
370 375 380

Glu Tyr Met Phe Cys Ala Gly Tyr Ser Asp Gly Ser Lys Asp Ser Cys
385 390 395 400

Lys Gly Asp Ser Gly Gly Pro His Ala Thr His Tyr Arg Gly Thr Trp
405 410 415

Tyr Leu Thr Gly Ile Val Ser Trp Gly Gln Gly Cys Ala Thr Val Gly
420 425 430

His Phe Gly Val Tyr Thr Arg Val Ser Gln Tyr Ile Glu Trp Leu Gln
435 440 445

Lys Leu Met Arg Ser Glu Pro Arg Pro Gly Val Leu Leu Arg Ala Pro
450 455 460

Phe Pro Gly Ser Ala Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys
465 470 475 480

Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
485 490 495

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
500 505 510

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
Page 5

Sequence Listing.ST25.txt
515 520 525

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
530 535 540

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
545 550 555 560

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
565 570 575

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
580 585 590

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
595 600 605

Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
610 615 620

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
625 630 635 640

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
645 650 655

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
660 665 670

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
675 680 685

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
690 695 700

<210> 7
<211> 232
<212> PRT
<213> Human

<400> 7

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10 15

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
20 25 30

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
Page 6

35

Sequence Listing.ST25.txt
40 45

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
50 55 60

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
85 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
100 105 110

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
115 120 125

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
130 135 140

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
145 150 155 160

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
165 170 175

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
180 185 190

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
210 215 220

Ser Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 8
<211> 641
<212> PRT
<213> Artificial

<220>
<223> Synthetic

<220>
<221> misc_feature
<222> (6)..(7)

Sequence Listing.ST25.txt

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (14)..(14)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (16)..(16)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (19)..(20)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (25)..(26)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (29)..(29)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (35)..(35)

<223> Xaa can be any naturally occurring amino acid

<400> 8

Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa
1 5 10 15

Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys
20 25 30

Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr Ser Asp Gly Asp
35 40 45

Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly Gly Ser Cys Lys Asp Gln
50 55 60

Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro Ala Phe Glu Gly Arg Asn
65 70 75 80

Cys Glu Thr His Lys Asp Asp Gln Leu Ile Cys Val Asn Glu Asn Gly
85 90 95

Gly Cys Glu Gln Tyr Cys Ser Asp His Thr Gly Thr Lys Arg Ser Cys
100 105 110

Arg Cys His Glu Gly Tyr Ser Leu Leu Ala Asp Gly Val Ser Cys Thr

Sequence Listing.ST25.txt
115 120 125

Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile Pro Ile Leu Glu Lys Arg
130 135 140

Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val Cys Pro
145 150 155 160

Lys Gly Glu Cys Pro Trp Gln Val Leu Leu Val Asn Gly Ala Gln
165 170 175

Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile Trp Val Val Ser Ala Ala
180 185 190

His Cys Phe Asp Lys Ile Lys Asn Trp Arg Asn Leu Ile Ala Val Leu
195 200 205

Gly Glu His Asp Leu Ser Glu His Asp Gly Asp Glu Gln Ser Arg Arg
210 215 220

Val Ala Gln Val Ile Ile Pro Ser Thr Tyr Val Pro Gly Thr Thr Asn
225 230 235 240

His Asp Ile Ala Leu Leu Arg Leu His Gln Pro Val Val Leu Thr Asp
245 250 255

His Val Val Pro Leu Cys Leu Pro Glu Arg Thr Phe Ser Glu Arg Thr
260 265 270

Leu Ala Phe Val Arg Phe Ser Leu Val Ser Gly Trp Gly Gln Leu Leu
275 280 285

Asp Arg Gly Ala Thr Ala Leu Glu Leu Met Val Leu Asn Val Pro Arg
290 295 300

Leu Met Thr Gln Asp Cys Leu Gln Gln Ser Arg Lys Val Gly Asp Ser
305 310 315 320

Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala Gly Tyr Ser Asp Gly Ser
325 330 335

Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly Pro His Ala Thr His Tyr
340 345 350

Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val Ser Trp Gly Gln Gly Cys
355 360 365

Sequence Listing.ST25.txt

Ala Thr Val Gly His Phe Gly Val Tyr Thr Arg Val Ser Gln Tyr Ile
370 375 380

Glu Trp Leu Gln Lys Leu Met Arg Ser Glu Pro Arg Pro Gly Val Leu
385 390 395 400

Leu Arg Ala Pro Phe Pro Gly Ser Ala Glu Pro Lys Ser Cys Asp Lys
405 410 415

Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
420 425 430

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
435 440 445

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
450 455 460

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
465 470 475 480

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
485 490 495

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
500 505 510

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
515 520 525

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
530 535 540

Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
545 550 555 560

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
565 570 575

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
580 585 590

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
595 600 605

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
610 615 620

Sequence Listing.ST25.txt

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
625 630 635 640

Lys

<210> 9
<211> 2106
<212> DNA
<213> Artificial

<220>
<223> Synthetic

<400> 9
atggtctccc aggccctcag gtcctctgc cttctgcttg ggcttcaggg ctgcctggct 60
gcaggcgggg tcgctaaggc ctcaggagga gaaacacggg acatgccgtg gaagccgggg 120
cctcacagag tcttcgtaac ccaggaggaa gcccacggcg tcctgcaccg gcgccggcgc 180
gccaacgcgt tcctggagga gctgcggccg ggctccctgg agagggagtg caaggaggag 240
cagtgctcct tcgaggaggc ccgggagatc ttcaaggacg cggagaggac gaagctgttc 300
tggatttctt acagtgtatgg ggaccagtgt gcctcaagtc catgccagaa tgggggctcc 360
tgcaaggacc agctccagtc ctatatctgc ttctgcctcc ctgccttcga gggccggaac 420
tgtgagacgc acaaggatga ccagctgatc tgtgtgaacg agaacggcgg ctgtgagcag 480
tactgcagt accacacggg cacaagcgc tcctgtcggt gccacgaggg gtactctctg 540
ctggcagacg gggtgtcctg cacacccaca gttgaatatc catgtggaaa aatacctatt 600
ctagaaaaaa gaaatgccag caaacccaa ggccgaattt tggggggcaa ggtgtcccc 660
aaaggggagt gtccatggca ggtcctgttg ttggtaatg gagtcagtt gtgtgggggg 720
accctgatca acaccatctg ggtggctcact gcggccact gttcgacaa aatcaagaac 780
tggaggaacc tgatgcggc gctggcgag cacgaccta cgcacgcacg cggggatgag 840
cagagccggc gggtgtcgca ggtcatcatc cccagcacgt acgtcccggg caccaccaac 900
cacgacatcg cgctgctccg cctgcaccag cccgtggtcc tcactgacca tgtggtgccc 960
ctctgcctgc ccgaacggac gttctctgag aggacgctgg cttcgtgcg cttctatt 1020
gtcagcggt gggccagct gctggaccgt ggccacgg ccctggagct catggtgctc 1080
aacgtcccc ggctgatgac ccaggactgc ctgcagcagt cacggaaggt gggagactcc 1140
ccaaatatca cggagtacat gttctgtgcc ggctactcgg atggcagcaa ggactcctgc 1200
gcggggaca gtggaggccc acatgccacc cactaccggg gcacgtggta cctgacgggc 1260
atcgtcagct gggccaggc ctgcgaacc gtggccact ttgggtgtta caccagggtc 1320
tcccagtaca tcgagtggct gcaaaagctc atgcgctcag agccacgccc aggagtcc 1380

Sequence Listing.ST25.txt

ctgcgagccc	catttccccgg	atccgcagag	cccaaatctt	gtgacaaaac	tcacacatgc	1440
ccaccgtgcc	cagcacctga	actcctgggg	ggaccgtcag	tcttcctctt	ccccccaaaa	1500
cccaaggaca	ccctcatgat	ctcccgacc	cctgaggtca	catgcgttgt	ggtggacgtg	1560
agccacgaag	accctgaggt	caagttcaac	tggtacgtgg	acggcgtgga	ggtgcataat	1620
gccaagacaa	agccgcggga	ggagcagtac	aacagcacgt	accgtgttgt	cagcgtcctc	1680
accgtcctgc	accaggactg	gctgaatggc	aaggagtaca	agtgcaggt	ctccaacaaa	1740
gccctccag	cccccatcga	gaaaaccatc	tccaaagcca	aagggcagcc	ccgagaacca	1800
caggtgtaca	ccctgcccc	atcccggtat	gagctgacca	agaaccaggt	cagcctgacc	1860
tgcctggta	aaggcttcta	tcccagcgcac	atcgccgtgg	agtgggagag	aatggcag	1920
ccggagaaca	actacaagac	cacgcctccc	gtgctggact	ccgacggctc	cttcttcctc	1980
tacagcaagc	tcaccgtgga	caagagcagg	tggcagcagg	ggaacgtctt	ctcatgctcc	2040
gtgatgcatg	aggctctgca	caaccactac	acgcagaaga	gcctctccct	gtctccgggt	2100
aatga						2106

<210> 10
 <211> 7493
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic

<400> 10	gctagccacc	atggtctccc	aggccctcag	gctcctctgc	cttctgcttg	ggcttcaggg	60
	ctgcctggct	gcaggcgggg	tcgctaaggc	ctcaggagga	gaaacacggg	acatgccgtg	120
	gaagccgggg	cctcacagag	tcttcgtaac	ccaggaggaa	gcccacggcg	tcctgcaccg	180
	gcgcggcgc	gccaacgcgt	tcctggagga	gctgcggccg	ggctccctgg	agagggagtg	240
	caaggaggag	cagtgctcct	tcgaggaggc	ccgggagatc	ttcaaggacg	cgagaggac	300
	gaagctgttc	tggatttctt	acagtgtatgg	ggaccagtgt	gcctcaagtc	catgccagaa	360
	tgggggctcc	tgcaaggacc	agctccagtc	ctatatctgc	ttctgcctcc	ctgccttcga	420
	gggccggaac	tgtgagacgc	acaaggatga	ccagctgatc	tgtgtgaacg	agaacggcgg	480
	ctgtgagcag	tactgcagtg	accacacggg	caccaagcgc	tcctgtcggt	gccacgaggg	540
	gtactctctg	ctggcagacg	gggtgtcctg	cacacccaca	gttgaatatc	catgtggaaa	600
	aataacctatt	ctagaaaaaaaaa	gaaatgccag	caaaccccaa	ggccgaattg	tggggggcaa	660
	ggtgtgcccc	aaaggggagt	gtccatggca	ggtcctgttg	tttgtgaatg	gagctcagtt	720
	gtgtgggggg	accctgatca	acaccatctg	ggtggtctcc	gcggccact	gtttcgacaa	780

Sequence Listing.ST25.txt

aatcaagaac	tggaggaacc	tgatcgccgt	gctgggcag	cacgaccta	gcgagcacga	840
cggggatgag	cagagccggc	gggtggcgca	ggtcatcatc	cccagcacgt	acgtcccg	900
caccaccaac	cacgacatcg	cgctgctccg	cctgcaccag	cccggttcc	tcactgacca	960
tgtggtccc	ctctgcctgc	ccgaacggac	gttctctgag	aggacgctgg	cttcgtgcg	1020
cttctcattg	gtcagcgct	ggggccagct	gctggaccgt	ggcgcacgg	ccctggagct	1080
catggtgctc	aacgtgcccc	ggctgatgac	ccaggactgc	ctgcagcagt	cacggaaggt	1140
gggagactcc	ccaaatatca	cggagtacat	gttctgtgcc	ggctactcgg	atggcagcaa	1200
ggactcctgc	gcgggggaca	gtggaggccc	acatgccacc	caactaccgg	gcacgtggta	1260
cctgacgggc	atcgtagct	ggggccaggg	ctgcgcaacc	gtggccact	ttggggtgta	1320
caccagggtc	tcccagtaca	tcgagtggct	gcaaaagctc	atgcgctcag	agccacgccc	1380
aggagtcctc	ctgcgagccc	cattcccg	atccgcagag	cccaaatctt	gtgacaaaac	1440
tcacacatgc	ccaccgtgcc	cagcacctga	actcctgggg	ggaccgtcag	tcttcctctt	1500
ccccccaaaa	cccaaggaca	ccctcatgat	ctccggacc	cctgaggtca	catgcgttgt	1560
ggtggacgtg	agccacgaag	accctgaggt	caagttcaac	tggtagtgg	acggcgtgga	1620
ggtgcataat	gccaagacaa	agccgcggga	ggagcagtag	aacagcacgt	accgtgttgt	1680
cagcgtcctc	accgtcctgc	accaggactg	gctgaatggc	aaggagtaca	agtgcaggt	1740
ctccaacaaa	gccctcccg	ccccatcga	gaaaaccatc	tccaaagcca	aagggcagcc	1800
ccgagaacca	caggtgtaca	ccctgcccc	atcccggat	gagctgacca	agaaccaggt	1860
cagcctgacc	tgcctggtca	aaggcttcta	tcccagcgcac	atgcgggtgg	agtggagag	1920
caatggcag	ccggagaaca	actacaagac	cacgcctccc	gtgctggact	ccgacggctc	1980
cttcttcctc	tacagcaagc	tcaccgtgga	caagagcagg	tggcagcagg	ggaacgtctt	2040
ctcatgctcc	gtgatgcatg	aggctctgca	caaccactac	acgcagaaga	gcctctccct	2100
gtctccgggt	aatgaaagg	gcgaattctg	cagatatcca	gcacagtggc	ggccgctcga	2160
gtctagaggg	cccgaaa	cccgtgatc	agcctcgact	gtgccttcta	gttgcagcc	2220
atctgttgtt	tgcccctccc	ccgtgccttc	ttgaccctg	gaaggtgcca	ctcccactgt	2280
ccttcctaa	taaaatgagg	aaattgcac	gcattgtctg	atgttgtgc	attctattct	2340
gggggggtgg	gtggggcagg	acagcaaggg	ggaggattgg	gaagacaata	gcaggcatgc	2400
tggggatgctg	gtgggctcta	tggctctga	ggcggaaaga	accagctggg	gctctagggg	2460
gtatccccac	gcgcctgta	gcggcgcatt	aagcgcggcg	ggtgtggtgg	ttacgcgcag	2520
cgtgaccgct	acacttgcca	gcgccttagc	gcccgcctc	ttcgcttct	tcccttcctt	2580
tctcgccacg	ttcgccggct	ttcccccgtca	agctctaaat	cggggctcc	ctttagggtt	2640
ccgatttagt	gcttacggc	acctcgaccc	caaaaaactt	gatgggttg	atggttcacg	2700

Sequence Listing.ST25.txt

tagtgggcca	tcgcccgtat	agacggttt	tcgcccgg	acgttggagt	ccacgttctt	2760
taatagtgga	ctcttggttcc	aaactggAAC	aacactcaac	cctatctcg	tctattcttt	2820
tgatttataa	gggatTTgc	cgatttgcgc	ctattggta	aaaaatgagc	tgatttaaca	2880
aaaattaac	gcgaattaat	tctgtggat	gtgtgtcagt	tagggtgtgg	aaagtcccc	2940
ggctccccag	caggcagaag	tatgcaaAGC	atgcatctca	attagtca	aaccaggTGT	3000
ggaaagtccc	caggctcccc	agcaggcaga	agtatgcaaa	gcatgcatct	caattagtca	3060
gcaaccatag	tcccggccct	aactccgccc	atcccgcccc	taactccg	cagttccgccc	3120
cattctccgc	cccatggctg	actaattttt	tttatttatg	cagaggccga	ggccgcctct	3180
gcctctgagc	tattccagaa	gtagtgagga	ggctttttt	gaggcctagg	cttttgcaaa	3240
aagctcccg	gagcttgtat	atccattttc	ggatctgatc	aagagacagg	atgaggatcg	3300
tttcgcatga	ttgaacaaga	tggattgcac	gcaggttctc	cggccgctt	ggtggagagg	3360
ctattcggct	atgactgggc	acaacagaca	atcggctgct	ctgatgccc	cgtgttccgg	3420
ctgtcagcgc	aggggcgccc	ggttctttt	gtcaagaccg	acctgtccgg	tgccctgaaat	3480
gaactgcagg	acgaggcagc	gcggctatcg	tggctggca	cgacggcgt	tccttgcgca	3540
gctgtgctcg	acgttgcac	tgaagcggga	agggactggc	tgctattggg	cgaagtgcgg	3600
ggcaggatc	tcctgtcatc	tcaccctgct	cctgccgaga	aagtatccat	catggctgat	3660
gcaatgcggc	ggctgcatac	gcttgatccg	gctacctg	cattgacca	ccaagcgaaa	3720
catcgcatcg	agcgagcacg	tactcgatg	gaagccggc	ttgtcgatca	ggatgatctg	3780
gacgaagagc	atcaggggct	cgcgcagcc	gaactgttcg	ccaggctcaa	ggcgcgcatg	3840
cccgacggcg	aggatctcg	cgtgacccat	ggcgatgc	gcttgccgaa	tatcatggtg	3900
gaaaatggcc	gctttctgg	attcatcgac	tgtggccggc	tgggtgtggc	ggaccgctat	3960
caggacatag	cggtggctac	ccgtgatatt	gctgaagagc	ttggcggc	atgggctgac	4020
cgcttcctcg	tgctttacgg	tatcgcc	cccgattcg	agcgatcg	cttctatcg	4080
cttcttgacg	agttcttc	agcgggactc	tgggttcg	aatgaccgac	caagcgacgc	4140
ccaacctg	atcacgagat	ttcgattcca	ccgccc	ctatgaaagg	ttgggcttcg	4200
gaatcg	tttccggacg	ggctggatga	tcctccagcg	cgggatctc	atgctggagt	4260
tcttcgccc	ccccaaactt	tttattgcag	cttataatgg	ttacaaataa	agcaatagca	4320
tcacaaat	cacaaataaa	gcattttt	cactgcat	tagttgtgg	ttgtccaaac	4380
tcatcaatgt	atcttatcat	gtctgtatac	cgtgcac	tagctagagc	ttggcgtaat	4440
catggtcata	gctgtttcct	gtgtgaaatt	gttatccg	cacaattcca	cacaacatac	4500
gagccggaag	cataaagtgt	aaagccctgg	gtgccta	atgagctaa	ctcacattaa	4560

Sequence Listing.ST25.txt

ttgcgttgcg	ctcaactgccc	gctttccagt	cgggaaacct	gtcggtccag	ctgcattaat	4620
gaatcggcca	acgcgcgggg	agaggcgggtt	tgcgtattgg	gcgccttcc	gcttcctcgc	4680
tcactgactc	gctgcgctcg	gtcggtccggc	tgcggcgagc	ggtatcagct	cactcaaagg	4740
cggtaatacg	gttatccaca	gaatcagggg	ataacgcagg	aaagaacatg	tgagcaaaag	4800
gccagcaaaa	ggccaggaac	cgtaaaaagg	ccgcgttgct	ggcgttttc	cataggctcc	4860
ccccccctga	cgagcatcac	aaaaatcgac	gctcaagtca	gaggtggcga	aacccgacag	4920
gactataaaag	ataccaggcg	tttccccctg	gaagctccct	cgtgcgtct	cctgttccga	4980
ccctgcccgt	taccggatac	ctgtccgcct	ttctcccttc	gggaagcgtg	gcgccttctc	5040
atagctcacf	ctgttaggtat	ctcagttcgg	tgttaggtcgt	tcgctccaag	ctgggctgtg	5100
tgcacgaacc	ccccgttcag	cccgaccgct	gcgccttatac	cggtaactat	cgtcttgagt	5160
ccaaacccgt	aagacacgac	ttatcgccac	tggcagcagc	cactggtaac	aggattagca	5220
gagcgaggtt	tgttaggcggt	gctacagagt	tcttgaagtg	gtggcctaac	tacggctaca	5280
ctagaagaac	agtatTTGgt	atctgcgtc	tgctgaagcc	agttaccttc	ggaaaaaagag	5340
ttggtagctc	ttgatccggc	aaacaacca	ccgctggtag	cgggtttttt	gtttgcaagc	5400
agcagattac	gcgcagaaaa	aaaggatctc	aagaagatcc	tttgatcttt	tctacggggt	5460
ctgacgctca	gtggaacgaa	aactcacgtt	aagggatTTT	ggtcatgaga	ttatcaaaaa	5520
ggatcttcac	ctagatcctt	ttaaattaaa	aatgaagttt	taaatcaatc	taaagtatat	5580
atgagtaaac	ttggtctgac	agttaccaat	gcttaatcag	tgaggcacct	atctcagcga	5640
tctgtctatt	tcgttcatcc	atagttgcct	gactcccg	cgtgtagata	actacgatac	5700
gggaggggctt	accatctggc	cccagtgctg	caatgataacc	gcgagaccca	cgctcaccgg	5760
ctccagattt	atcagcaata	aaccagccag	ccggaagggc	cgagcgcaga	agtggccttg	5820
caactttatc	cgcctccatc	cagtctatta	attgttggccg	ggaagctaga	gtaagttagtt	5880
cggcagttaa	tagttgcgc	aacgttgg	ccattgctac	aggcatcg	gtgtcacgct	5940
cgtcgtttgg	tatggcttca	ttcagctccg	gttcccacg	atcaaggcga	gttacatgat	6000
cccccatgtt	gtgaaaaaaaa	gcggtagct	ccttcggtcc	tccgatcg	gtcagaagta	6060
agttggccgc	agtgttatca	ctcatggta	tggcagcact	gcataattct	cttactgtca	6120
tgccatccgt	aagatgctt	tctgtgactg	gtgagtactc	aaccaagtca	ttctgagaat	6180
agtgtatgcg	gcgaccgagt	tgctttgcc	cgccgtcaat	acgggataat	accgcgccac	6240
atagcagaac	ttaaaaagt	ctcatcattg	gaaaacgttc	ttcggggcga	aaactctcaa	6300
ggatcttacc	gctgttgaga	tccagttcga	tgtacccac	tcgtgcaccc	aactgatctt	6360
cagcatctt	tactttcacc	agcgtttctg	ggtgagcaaa	aacaggaagg	caaaatgccg	6420
caaaaaagg	aataagggcg	acacggaaat	gttgaatact	catacttttc	ctttttcaat	6480

Sequence Listing.ST25.txt

attatttgcgg cttttatcg ggttattgtc tcatgagcggtt atacatattt gaatgtattt	6540
agaaaaataa acaaataatagggttccgcgcataatccccaaaagtgccttgacgtcg	6600
acggatcggtt agatctcccgatcccataatgtgcactctc agtacaatct gctctgatgc	6660
cgcatagtta agccagttatctgctccatgttggatgttggatgtcgatgtcg	6720
gagcaaaatt taagctacaa caaggcaagg ctgaccgac aattgcataagaatctgct	6780
tagggtaggcgtttgcgc tgcttcgcgttgtacgggcaatgtatgcgttgcatttgc	6840
attattgact agttatataat agtaatcaat tacgggtca tttagttcata gcccataat	6900
ggagttccgc gttacataaac ttacggtaaa tggccgcct ggctgaccgc ccaacgaccc	6960
ccgcccattt acgtcaataat tgacgtatgt tcccatagta acgccaatag ggactttcca	7020
ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagttac atcaagtgtat	7080
tcatatgcca agtacgcccc ctattgacgt caatgacggtaatggcccg cctggcatta	7140
tggccagttac atgaccttat gggactttcc tacttggcag tacatctacg tattagtcatt	7200
cgctattacc atgggtatgc ggtttggca gtacatcaat gggcgtggat agcggtttga	7260
ctcacgggta tttccaagtc tccacccat tgacgtcaat gggagttgt tttggcacca	7320
aaatcaacgg gactttccaa aatgtcgtaa caactccgc ccatggacgc aaatggccgg	7380
taggcgtgtt cggtgggagg tctatataag cagagcttc tggctaacta gagaacccac	7440
tgcttactgg ctatcgaaa ttaatacgac tcactatagg gagacccaaatgttgc	7493

<210> 11
<211> 679
<212> PRT
<213> Artificial

<220>
<223> Synthetic

<400> 11

Met Val Ser Gln Ala Leu Arg Leu Leu Cys Leu Leu Leu Gly Leu Gln
1 5 10 15

Gly Cys Leu Ala Ala Val Phe Val Thr Gln Glu Glu Ala His Gly Val
20 25 30

Leu His Arg Arg Arg Ala Asn Ala Phe Leu Glu Glu Leu Arg Pro
35 40 45

Gly Ser Leu Glu Arg Glu Cys Lys Glu Glu Gln Cys Ser Phe Glu Glu
50 55 60

Ala Arg Glu Ile Phe Lys Asp Ala Glu Arg Thr Lys Leu Phe Trp Ile
Page 16

Sequence Listing.ST25.txt

65	70	75	80
Ser Tyr Ser Asp Gly Asp Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly			
85	90		95
Gly Ser Cys Lys Asp Gln Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro			
100	105		110
Ala Phe Glu Gly Arg Asn Cys Glu Thr His Lys Asp Asp Gln Leu Ile			
115	120		125
Cys Val Asn Glu Asn Gly Gly Cys Glu Gln Tyr Cys Ser Asp His Thr			
130	135		140
Gly Thr Lys Arg Ser Cys Arg Cys His Glu Gly Tyr Ser Leu Leu Ala			
145	150		155
Asp Gly Val Ser Cys Thr Pro Thr Val Glu Tyr Pro Cys Gly Lys Ile			
165	170		175
Pro Ile Leu Glu Lys Arg Asn Ala Ser Lys Pro Gln Gly Arg Ile Val			
180	185		190
Gly Gly Lys Val Cys Pro Lys Gly Glu Cys Pro Trp Gln Val Leu Leu			
195	200		205
Leu Val Asn Gly Ala Gln Leu Cys Gly Gly Thr Leu Ile Asn Thr Ile			
210	215		220
Trp Val Val Ser Ala Ala His Cys Phe Asp Lys Ile Lys Asn Trp Arg			
225	230		240
Asn Leu Ile Ala Val Leu Gly Glu His Asp Leu Ser Glu His Asp Gly			
245	250		255
Asp Glu Gln Ser Arg Arg Val Ala Gln Val Ile Ile Pro Ser Thr Tyr			
260	265		270
Val Pro Gly Thr Thr Asn His Asp Ile Ala Leu Leu Arg Leu His Gln			
275	280		285
Pro Val Val Leu Thr Asp His Val Val Pro Leu Cys Leu Pro Glu Arg			
290	295		300
Thr Phe Ser Glu Arg Thr Leu Ala Phe Val Arg Phe Ser Leu Val Ser			
305	310		320

Sequence Listing.ST25.txt

Gly Trp Gly Gln Leu Leu Asp Arg Gly Ala Thr Ala Leu Glu Leu Met
325 330 335

Val Leu Asn Val Pro Arg Leu Met Thr Gln Asp Cys Leu Gln Gln Ser
340 345 350

Arg Lys Val Gly Asp Ser Pro Asn Ile Thr Glu Tyr Met Phe Cys Ala
355 360 365

Gly Tyr Ser Asp Gly Ser Lys Asp Ser Cys Lys Gly Asp Ser Gly Gly
370 375 380

Pro His Ala Thr His Tyr Arg Gly Thr Trp Tyr Leu Thr Gly Ile Val
385 390 395 400

Ser Trp Gly Gln Gly Cys Ala Thr Val Gly His Phe Gly Val Tyr Thr
405 410 415

Arg Val Ser Gln Tyr Ile Glu Trp Leu Gln Lys Leu Met Arg Ser Glu
420 425 430

Pro Arg Pro Gly Val Leu Leu Arg Ala Pro Phe Pro Gly Ser Ala Glu
435 440 445

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
450 455 460

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
465 470 475 480

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
485 490 495

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
500 505 510

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
515 520 525

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
530 535 540

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
545 550 555 560

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
565 570 575

Sequence Listing.ST25.txt

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
580 585 590

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
595 600 605

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
610 615 620

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
625 630 635 640

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
645 650 655

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
660 665 670

Leu Ser Leu Ser Pro Gly Lys
675

<210> 12

<211> 2040

<212> DNA

<213> Artificial

<220>

<223> Synthetic

<400> 12

atggtctccc aggccctcag gtcctctgc cttctgcttgc ggcttcaggg ctgcctggct 60

gcagtcttcg taacccagga ggaagcccac ggcgtcctgc accggcgccg gcgcgccaac 120

gcgttccctgg aggagctgcg gccgggctcc ctggagaggg agtgcaagga ggagcagtgc 180

tccttcgagg aggcccgaaa gatcttcaag gacgcggaga ggacgaagct gttctggatt 240

tcttacagtg atggggacca gtgtcctca agtccatgcc agaatggggg ctcctgcaag 300

gaccagctcc agtcctataat ctgcttctgc ctccctgcct tcgagggccg gaactgtgag 360

acgcacaagg atgaccagct gatctgtgtg aacgagaacg gcggctgtga gcagtactgc 420

agtgaccaca cgggcaccaa ggcgtcctgt cggtgccacg aggggtactc tctgctggca 480

gacggggtgt cctgcacacc cacagttgaa tatccatgtg gaaaaatacc tattctagaa 540

aaaagaaaatg ccagcaaacc ccaaggccga attgtgggg gcaaggtgtg ccccaaagg 600

gagtgtccat ggcaggtcct gttgtgggt aatggagetc agttgtgtgg ggggaccctg 660

atcaacaccca tctgggtggt ctccgcggcc cactgtttcg acaaaaatcaa gaactggagg 720

aacctgatcg cggtgctggg cgagcacgac ctcagcggac acgacgggaa tgagcagacg 780

Sequence Listing.ST25.txt

cggcgggtgg	cgcaggcat	catccccagc	acgtacgtcc	cgggcaccac	caaccacgac	840
atcgcgctgc	tccgcctgca	ccagcccgtg	gtcctcactg	accatgttgtt	gcccctctgc	900
ctgcccgaac	ggacgttctc	tgagaggacg	ctggccttcg	tgcgttctc	attggtcagc	960
ggctggggcc	agctgctgga	ccgtggcgcc	acggccctgg	agctcatggt	gctcaacgtg	1020
ccccggctga	tgacccagga	ctgcctgcag	cagtcacgga	aggtgggaga	ctccccaaat	1080
atcacggagt	acatgttctg	tgccggctac	tcggatggca	gcaaggactc	ctgcgcgggg	1140
gacagtggag	gcccacatgc	caccactac	cggggcacgt	gttacctgac	gggcacatgtc	1200
agctggggcc	agggctgcgc	aaccgtgggc	cactttgggg	tgtacaccag	ggtctcccag	1260
tacatcgagt	ggctgcaaaa	gctcatgcgc	tcagagccac	gcccaggagt	cctcctgcga	1320
gccccatttc	ccggatccgc	agagccaaa	tcttgtgaca	aaactcacac	atgcccaccg	1380
tgcccagcac	ctgaactcct	ggggggaccg	tcagtcttcc	tcttcccccc	aaaacccaag	1440
gacaccctca	tgatctcccg	gaccctgag	gtcacatgcg	tgggttgttga	cgtgagccac	1500
gaagaccctg	aggtaagtt	caactggtac	gtggacggcg	tggaggtgca	taatgccaag	1560
acaaagccgc	gggaggagca	gtacaacagc	acgtaccgtg	tggtcagcgt	cctcaccgtc	1620
ctgcaccagg	actggctgaa	tggcaaggag	tacaagtgca	aggctccaa	caaagccctc	1680
ccagccccca	tcgagaaaac	catctccaaa	gccaaagggc	agcccccaga	accacaggtg	1740
tacaccctgc	ccccatcccg	ggatgagctg	accaagaacc	aggtcagcct	gacctgcctg	1800
gtcaaaggct	tctatcccag	cgacatcgcc	gtggagtggg	agagcaatgg	gcagccggag	1860
aacaactaca	agaccacgccc	tccctgctg	gactccgacg	gctccttctt	cctctacagc	1920
aagctcaccg	tggacaagag	caggtggcag	caggggaacg	tcttctcatg	ctccgtatg	1980
catgaggctc	tgcacaacca	ctacacgcag	aagacccct	ccctgtctcc	ggtaaatga	2040

<210> 13
<211> 7427
<212> DNA
<213> Artificial

<220>
<223> Synthetic

<400> 13	gctagccacc	atggtctccc	aggccctcag	gctcctctgc	cttctgcttg	ggcttcaggg	60
	ctgcctggct	gcagtcttcg	taacccagga	ggaagccac	ggcgtcctgc	accggcgccg	120
	gcgcgccaac	gcgttctgg	aggagctgcg	gccgggctcc	ctggagaggg	agtgcagga	180
	ggagcagtgc	tccttcgagg	aggcccggga	gatcttcaag	gacgcggaga	ggacgaagct	240
	gttctggatt	tcttacagtg	atggggacca	gtgtgcctca	agtccatgcc	agaatgggg	300

Sequence Listing.ST25.txt

ctcctgcaag gaccagctcc agtcctatat ctgcttgc	ctccctgcct tcgagggccg	360
gaactgtgag acgcacaagg atgaccagct gatctgtgtg	aacgagaacg gcggctgtga	420
gcagtactgc agtgaccaca cgggcaccaa gcgccttgt	cgggccacg aggggtactc	480
tctgctggca gacgggtgt cctgcacacc cacagttgaa	tatccatgtg gaaaaatacc	540
tattcttagaa aaaagaaaatg ccagcaaacc ccaaggccga	attgtggggg gcaagggtgtg	600
ccccaaaggg gagtgtccat ggcaggtcct gttgttgtg	aatggagctc agttgtgtgg	660
ggggaccctg atcaacacca tctgggttgt ctccgcggcc	cactgtttcg aaaaaatcaa	720
gaactggagg aacctgatcg cggtgctggg cgagcacgac	ctcagcgagc acgacggga	780
tgagcagagc cggcgggtgg cgcaaggtcat catccccagc	acgtacgtcc cgggcaccac	840
caaccacgac atcgcgctgc tccgcctgca ccagcccgtg	gtcctcaactg accatgttgt	900
gcccctctgc ctgcccgaac ggacgttctc tgagaggacg	ctggccttcg tgcgcttctc	960
attggtcagc ggctggggcc agctgctgga ccgtggcgcc	acggccctgg agctcatggt	1020
gctcaacgtg ccccggtga tgacccagga ctgcctgcag	cagtcacgga aggtgggaga	1080
ctccccaaat atcacggagt acatgttctg tgccggctac	tcggatggca gcaaggactc	1140
ctgcgcgggg gacagtggag gcccacatgc cacccactac	cggggcacgt ggtacctgac	1200
gggcacatgta agctggggcc agggctgcgc aaccgtggc	cactttgggg tgtacaccag	1260
ggtctcccg tacatcgagt ggctgcaaaa gctcatgcgc	tcagagccac gcccaggagt	1320
cctcctgcga gccccatttc ccggatccgc agagccaaa	tcttgtgaca aaactcacac	1380
atgcccaccg tgcccagcac ctgaactcct gggggaccg	tcagtcttcc tcttcccccc	1440
aaaacccaag gacaccctca tgatctccg gacccctgag	gtcacatgcg tgggtggta	1500
cgtgagccac gaagaccctg aggtcaagtt caactggta	gtggacggcg tggaggtgca	1560
taatgccaag acaaagccgc gggagggagca gtacaacagc	acgtaccgtg tggcagcgt	1620
cctcaccgtc ctgcaccagg actggctgaa tggcaaggag	tacaagtgca aggtctccaa	1680
caaagccctc ccagccccc tcgagaaaac catctccaaa	gccaaagggc agccccgaga	1740
accacaggtg tacaccctgc ccccatcccg ggatgagctg	accaagaacc aggtcagcct	1800
gacctgcctg gtcaaaggct tctatcccg cgacatgcgc	gtggagtggg agagcaatgg	1860
gcagccggag aacaactaca agaccacgcc tcccgtctg	gactccgacg gctccttctt	1920
cctctacagc aagctcacccg tggacaagag caggtggcag	caggggaacg tcttctcatg	1980
ctccgtatg catgaggctc tgcacaacca ctacacgcag	aagagcctct ccctgtctcc	2040
gggtaaatga aagggcgaat tctgcagata tccagcacag	tggcggccgc tcgagtctag	2100
agggcccggtt taaacccgct gatcgcctc gactgtgcct	tctagttgcc agccatctgt	2160
tgtttgcccc tccccctgtc cttccttgac cctggaaggt	gccactccca ctgtccttcc	2220

Sequence Listing.ST25.txt

ctaataaaat gaggaaattg catcgcatgg tctgagtagg tgtcattcta ttctgggggg	2280
tgggtgggg caggacagca agggggagga ttgggaagac aatagcaggc atgctgggaa	2340
tgcggtgggc tctatggcct ctgaggcgg aagaaccagc tggggctcta gggggtatcc	2400
ccacgcgccc tgttagcggcg cattaagcgc ggcgggtgt gtggttacgc gcagcgtgac	2460
cgctacactt gccagcgc ccc tagcgcgc tccttcgct ttctccctt ccttctcgc	2520
cacgttcgcc ggcttcccc gtcaagctct aaatcgaaaa ctcccttag gttccgatt	2580
tagtgcctta cggcacctcg accccaaaaa acttgattag ggtatggtt cacgtagtgg	2640
gccatcgccc tgatagacgg ttttcgccc tttgacgtt gagtccacgt tcttaatag	2700
tggactcttg ttccaaactg gaacaacact caaccctatc tcggtctatt ctttgattt	2760
ataaggatt ttgccgattt cggcctattt gttaaaaat gagctgattt aacaaaaatt	2820
taacgcgaat taattctgtg gaatgtgtgt cagttagggt gtggaaagtc cccaggctcc	2880
ccagcaggca gaagtatgca aagcatgcat ctcaattagt cagcaaccag gtgtggaaag	2940
tccccaggct cccaggcagg cagaagtatg caaagcatgc atctcaatta gtcagcaacc	3000
atagtccgc ccctaactcc gcccattccg cccctaactc cgcccaatttc cgccattct	3060
ccgccccatg gctgactaat ttttttatt tatgcagagg ccgaggccgc ctctgcctct	3120
gagctattcc agaagtatgtt aggaggctt tttggaggcc taggctttt caaaaagctc	3180
ccgggagctt gtatatccat ttccggatct gatcaagaga caggatgagg atcgttcgc	3240
atgattgaac aagatggatt gcacgcagg tctccggccg cttgggtgga gaggctattc	3300
ggctatgact gggcacaaca gacaatcgcc tgctctgatg ccggctgtt ccggctgtca	3360
gcgcaggggc gcccggttct ttttgtcaag accgacctgt ccggtgccct gaatgaactg	3420
caggacgagg cagcgcggct atcggtggctg gccacgacgg gcgttccttgc cgcaatgt	3480
ctcgacgttgc tcactgaagc gggaaaggac tggctgctat tggcgaagt gcccggcag	3540
gatctcctgt catctcacct tgctcctgccc gagaaagtat ccatcatggc tgatgcaatg	3600
cgccggctgc atacgcttga tccggctacc tgcccattcg accaccaagc gaaacatcgc	3660
atcgagcgag cacgtactcg gatggaaagcc ggtcttgcg atcaggatga tctggacgaa	3720
gagcatcagg ggctcgcgc agccgaactg ttcgcccaggc tcaaggcgcg catgcccac	3780
ggcgaggatc tcgtcggtac ccatggcgat gcctgcttgc cgaatatcat ggtggaaaat	3840
ggccgctttt ctggattcat cgactgtggc cggctgggtg tggcggaccg ctatcaggac	3900
atagcggtgg ctacccgtga tattgctgaa gagcttggcg gcgaatgggc tgaccgcttc	3960
ctcggtctt acggatcgcc cgctcccgat tcgcagcgc tgccttcta tgccttctt	4020
gacgagttct tctgagcggg actctgggt tcgaaatgac cgaccaagcg acgccccacc	4080

Sequence Listing.ST25.txt

tgccatcacg	agatttcgat	tccaccgccc	ccttctatga	aaggttgggc	ttcggaatcg	4140
tttccggga	cgccggctgg	atgatcctcc	agcgccccca	tctcatgctg	gagttctcg	4200
cccacccaa	cttgtttatt	gcagctata	atggttacaa	ataaagcaat	agcatcacaa	4260
atttcacaaa	taaagcattt	tttcactgc	attctagttg	tggtttgtcc	aaactcatca	4320
atgtatctta	tcatgtctgt	ataccgtcga	cctctagcta	gagcttggcg	taatcatggt	4380
catagctgtt	tcctgtgtga	aattgttatac	cgctcacaat	tccacacaac	atacgagccg	4440
gaagcataaa	gtgtaaagcc	tgggtgcct	aatgagttag	ctaaactcaca	ttaattgcgt	4500
tgcgctca	gcccgccttc	cagtcggaa	acctgtcg	ccagctgc	aatgaatcg	4560
gccaacgcgc	ggggagagggc	ggttgcgt	ttggcgctc	ttccgcttcc	tcgctca	4620
actcgctgcg	ctcggtcg	cggctgcggc	gagcggtatc	agctca	aaggcgtaa	4680
tacggttatac	cacagaatca	ggggataacg	caggaaagaa	catgtgagca	aaaggccagc	4740
aaaaggccag	gaaccgtaaa	aaggccgcgt	tgctggcg	tttccatagg	ctccgc	4800
ctgacgagca	tcacaaaaat	cgacgctcaa	gtcagagg	gcgaaacccg	acaggactat	4860
aaagatacca	ggcgttccc	cctgaaagct	ccctcg	ctctccgtt	ccgacc	4920
cgcttaccgg	atacctgtcc	gccttctcc	cttcggaaag	cgtggcg	tctcatagct	4980
cacgctgtag	gtatctcagt	tcgggttag	tcgttc	caagctggc	tgtgtgcacg	5040
aaccccccgt	tcagccccac	cgctgcgc	tatccggtaa	ctatcg	ttagtccaa	5100
cggtaagaca	cgacttatcg	ccactggcag	cagccactgg	taacaggatt	agcagagcga	5160
ggtatgttag	cgggtctaca	gagttctga	agtggtg	taactacggc	tacactagaa	5220
gaacagtatt	tggtatctgc	gctctgctga	agccagttac	cttcggaaa	agagttggta	5280
gctcttgatc	cggcaaaca	accaccgctg	gtagcg	tttgg	ttgc aagcagcaga	5340
ttacgcgcag	aaaaaaagga	tctcaagaag	atcc	tttctacg	gggtctgacg	5400
ctcagtggaa	cgaaaactca	cgttaagg	tttgg	cat gagatca	aaaaggatct	5460
tcacccat	cctttaaat	taaaaatgaa	gtttaaatc	aatctaaagt	atatatgagt	5520
aaacttggtc	tgacagttac	caatgctaa	tcagtgg	acccatctca	gcatctgc	5580
tatccgttc	atccatagtt	gcctgactcc	ccgtcg	gataactacg	atacggagg	5640
gcttaccatc	tggccccagt	gctgaaatga	taccgcg	gaga cccac	cgctcc	5700
atttatcagc	aataaaccag	ccagccggaa	gggccc	gagc g	cagaagtgg	5760
tatccgcctc	catccagtc	attaattgtt	gccgg	gaag	tagtaagt agtcgc	5820
ttaatagttt	gcaacgtt	gttgcattt	ctacagg	cat cgtgg	gtca cgctcg	5880
ttggatggc	ttcattcagc	tccgg	tttcc	aacgatcaag	gca gat taca	5940
tggttgcaaa	aaaagcggtt	agtccttcg	gtcctcc	gat cgt	aga taagttgg	6000

Sequence Listing.ST25.txt

ccgcagtgtt atcactcatg gttatggcag cactgcataa ttctcttact gtcatgccat	6060
ccgtaagatg ct当地tctgtg actggtgagt actcaaccaa gtcattctga gaatagtgtatgcggcgacc gagttgctct tgcccggcgt caatacggga taataccgcg ccacatagca	6120
gaacttaaa agtgctcatc attggaaaac gttcttcggg gcgaaaactc tcaaggatct	6180
taccgctgtt gagatccagt tcgatgtaac ccactcgtgc acccaactga tcttcagcat	6240
ctttacttt caccagcgtt tctgggtgag caaaaacagg aaggcaaaat gccgaaaaaa	6300
agggaataag ggcgacacgg aaatgttcaa tactcatact cttccctttt caatattatt	6360
gaagcattta tcagggttat tgtctcatga gcggatacat atttgaatgt atttagaaaa	6420
ataaaacaat aggggttccg cgcacatttc cccgaaaagt gccacctgac gtcgacggat	6480
cgggagatct cccgatcccc tatggtgcac tctcagtaca atctgctctg atgcccata	6540
gttaagccag tatctgctcc ctgcttgcgt gttggaggtc gctgagtagt gcgcgagcaa	6600
aatttaagct acaacaaggc aaggcttgac cgacaattgc atgaagaatc tgcttagggt	6660
taggcgtttt ggcgtgcttc gcgatgtacg ggccagatat acgcgttgac attgattatt	6720
gactagttat taatagtaat caattacggg gtcattagtt catagcccat atatggagtt	6780
ccgcgttaca taacttacgg taaatggccc gcctggctga ccgccaacg accccccc	6840
attgacgtca ataatgacgt atgttcccat agtaacgcca atagggactt tccattgacg	6900
tcaatgggtg gagtattac ggttaactgc ccacttgca gtacatcaag tgtatcatat	6960
gccaagtacg cccccattt acgtcaatga cggtaaatgg cccgcctggc attatgccca	7020
gtacatgacc ttatggact ttcctacttg gcagtagatc tacgtattag tcatacgat	7080
taccatggtg atgcggttt ggcagtagatc caatggcgt ggatagcggg ttgactcacg	7140
gggatttcca agtctccacc ccattgacgt caatggagtttggc accaaaatca	7200
acgggacttt cccaaatgtc gtaacaactc cggccattt acgcaaatgg gcggtaggcg	7260
tgtacggtgg gaggtctata taagcagagc tctctggcta actagagaac ccactgctta	7320
ctggcttatac gaaattaata cgactcacta tagggagacc caagctg	7380
	7427